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DRUNK-DRIVING INTERVENTION IN AN URBAN COMMUNITY: AN EXPLORATORY ANALYSIS

by

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Abstract

The purpose of this study was to investigate whether age, sex, and marital status differences exist in preventing the occurrence of impaired driving among urban residents. Among other findings, the overwhelming proportion of the respondents were willing to intervene and prevent the occurrence of impaired driving. The research offers evidence that offering to drive the intoxicated person home or calling a taxi were the most frequently employed intervention techniques by the respondents. More females than males took keys away to prevent the occurrence of drunk-driving. Suggestions for future research are couched.

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Introduction

In recent years, a considerable amount of research activity has focused on alcohol-related problems (Vingilis et. al., 1984; Mosher; 1983, Hetherington et. al., 1978; Smart, 1976; Yoder, 1975; Roder and Mye, 1973). Research has been particularly evident with respect to drunk-driving situations, partly because of the third party involved and the increasing number of adolescents involved in alcohol-related traffic accidents resulting in fatalities and injuries.

In Alberta, for example, alcohol is associated with a large proportion of traffic accidents. In 1986, there were 2,618 alcohol-related collisions in the province. About 27 percent of drivers involved in fatal crashes in that year had been drinking compared to about 12 percent of drivers in injury crashes (Alberta Traffic Collision Statistics, 1986:1). Casualty rates were highest for persons between the ages of 15-24. Available figures also posit that casualty rates were higher for males than females and higher for singles than married persons.

Drunk driving is a growing concern in Alberta. According to the National Household Survey on Drinking and Driving reported in Canada in 1984 (the year the present research was conducted), impaired driving was identified as the major source of concern to Albertans. Concomitantly, a battery of drunk-driving countermeasures and treatment programs have been developed and implemented to curtail this menace. Current strategies to reduce alcohol-related problems, particularly drunk driving, include mass-media educational campaigns, legal sanctions, increasing the legal drinking age, and Check Stop programs. All of these countermeasures are tailored to influence the attitudes and behaviors of individuals engaged in drinking and driving. The success of the current vagaries of countermeasures in reducing the drunk-driving phenomenon has been marginal.

Recently, an increasing amount of research attention has been directed towards drunk-driving prevention through informal social control — social intervention by friends, relatives, neighbours and, perhaps, bartenders (Sawka; 1985; Wilson, 1984; Rabow et. al., 1986; Billheimer, 1983; Reed, 1981). At least three logical reasons account for the recent approach to drunk-driving research. First, drunk driving could be prevented by friends, relatives, neighbours, hosts, and bartenders, who are most likely to be present in the drinking environment. Second, the informal social control approach embraces more of prevention paradigm than do the formal social controls, which involves more policing, arrest,and punishment. Third, informal social control has been very instrumental in suicide prevention. Studies have shown consistently that peers, friends, relatives, and neighbours do intervene in suicide atttempts, but how social intervention is carried out in drunk-driving situations deserves more attention.

This research takes a different approach to the study of drunk driving by exploring the degree of willingness and active intervention in preventing impaired driving in an urban community. Specifically, the study examines variations in willingness and active intervention across three demographic variables (age, gender, and marital status). It is expected that willingness and active utilization of intervention techniques would vary across these variables. This analysis provides the first attempt to take this approach. Perhaps part of the significance of this analysis lies in its suggestions for future research.

Data and Method

The data analyzed here come from the annual Edmonton Area Study conducted in February 1984 by the Population Research Laboratory of the Department of Sociology at the University of Alberta.

As in previous surveys, a random sample was selected from a computerized list of all city addresses enumerated in the 1983 Edmonton Civic Census. From the computer tape, a simple random sample of 560 addresses for personal interviewing was selected (Kinzel, 1984). Within each household, one eligible person was selected as the respondent for the one-hour face-to-face interview. In family households, either the wife or husband was eligible for interviewing. In non-family households, any member 18 years old and older was eligible for interviewing.

The completed interviews were selectively and randomly verified through a number of checks which included re-contacting respondents by telephone and home visits. The final sample was 452, giving an 81 percent response rate.

Social Characteristics of the Sample

The final sample included 51 percent males and 49 percent females. The median age of the respondents was 34 years. Approximately 17 percent were age 18-24 years, 36 percent were between 25-34 years, 16 percent were 35-44, 19 percent were 45-59, while 12 percent were above 60 years old. The distribution of marital status of the respondents was as follows: 24 percent were single, 56 percent were married or living in a common-law relationship, and the remaining 20 percent were either divorced, separated, or widowed. With respect to religious affiliation, 42 percent were Protestant; 31 percent were Roman Catholic, Ukrainian Catholic, or Greek Orthodox; 2 percent were other; while 11 percent claimed no religious preference.

The respondents varied considerably in educational background. Approximately 11 percent had less than high school education, while an overwhelming majority (62 percent) had high school education, 11 percent had some university education, and 16 percent had a university degree. The median 1983 household income of the respondents was in the $30,000 - 31,999 range.

Findings

Alcohol-Related Issues

The 1984 Edmonton Area Study contained a number of questions on alcohol-related issues, particularly impaired driving. This section of the paper presents some findings on alcohol-related issues among the respondents. The overwhelming majority (83 percent) responded "yes" when asked, "Do you drink alcoholic beverages (had one or more drinks in the last year)?". Of those who drink, 24 percent admitted that they had driven after drinking at least once in an average month over the last year, while 15 percent reported the frequency of drinking-driving at a rate of two or more times during an average month. Only 8 percent reported this occurrence in the range of 4-28 times per month. In response to "Over the last year, have you been in a situation where a friend or someone in the family was about to drive while impaired?", about 41 percent (N = 184) answered "yes". Of these 184 respondents, 53 percent were males, while 47 percent were females; 34 percent were married, 51 percent single, and 14 percent were either seperated, divorced or widowed; and 30 percent were in the 18-24 age bracket, 45 percent were in the 25-34 age group, while 25 percent were 35 years old and over.

Over half of the respondents (51 percent) strongly agree that "A drunk person who causes an accident with personal injury should spend time in jail." When the respondents were presented with a list of some possible effective ways to prevent impaired driving, the five most frequently cited measures were: (1) increase penalty (e.g. mandatory jail sentences and larger fines), 44 percent; (2) increase law enforcement (e.g. more Check Stops), 17 percent; (3) conduct advertising campaigns to change people's attitudes about impaired driving, 14 percent; (4) teach more courses in the schools about the effects of alcohol, 9 percent, and (5) increase driver education among youth, 6 percent.

When the respondents were asked, "In your opinion, how likely is it that an impaired driver will be stopped by the police?" (measured on a 7-point scale from (1) very unlikely to (7), very likely), almost half of the sample (49 percent) admitted that it was unlikely that an impaired driver will be stopped by the police, while 28 percent admitted that the impaired driver would likely be caught by the police.

Approximately 94 percent of the 184 respondents who had been in a situation where a friend or someone in the family was about to drive while impaired took preventative measures. This figure is much higher than the 68 percent recorded for Canada (Wilson, 1984).1

Willingness to Prevent the Occurrence of Drunk-Driving

Table 1 displays the actions respondents would be willing to take to prevent impaired driving. Respondents were asked, "If a friend or someone in your family were about to drive when impaired, what actions from the list would you be willing to take to prevent him or her from driving?" The four most frequently cited actions respondents would be willing to take were: offer to drive the person home or have him or her take a taxi home (85 percent), suggest that the person stay overnight at your home or at a hotel (78 percent), try to persuade the person not to drive (75 percent), and try to take the person's keys away (46 percent). Only 10 percent would be willing to call the police. In general, the respondents (both drinkers and non-drinkers) would be more inclined to take "persuasive" rather than "coercive" actions in preventing drunk-driving situations.

Table 2 presents the type of intervention techniques respondents, grouped by gender, age, and marital status, were willing to employ in drunk-driving situations. It is notable that age, gender, and marital status appear insignificant in determining the type of intervention respondents were willing to take.

For both sexes, the most preferred intervention strategy would be to drive the person home or to have him or her take a taxi. Approximately 86 percent of males and 85 percent of females were willing to employ this technique. The least likely intervention for both sexes would be to call the police. Only 9.2 percent of males and 10.9 percent of females were willing to employ such an intervention technique.

Intervention techniques vary slightly with age. It is apparent that coercive action such as taking the impaired person's keys away would be most frequently employed by those 18-24 years old than by any other age group ($p<.05$), while calling the police would be employed most frequently by those 35 years old and over ($p<.05$). The relationship between respondents' willingness to call the police and marital status was significant ($p<.01$). Married respondents were less willing to call the police than single respondents.

1The Edmonton question addresses intervention among friends and family members while the National survey question addresses intervention with someone. This may partly explain the higher rate of intervention in the Edmonton sample.

TABLE 1. ACTIONS RESPONDENTS WERE WILLING TO TAKE IN PREVENTING IMPAIRED-DRIVING

Type of Intervention	Percent Willing To Intervene N=452
Persuade the person not to drive	75 (339)
Drive the person home or have him/her take a taxi	86 (385)
Suggest that the person stay overnight at your home or at a hotel	78 (352)
Take the person's keys away	46 (209)
Physically restrain the person	19 (86)
Call the Police	10 (45)

Note: Multiple responses are reported. Numbers in parentheses are raw frequencies. Percentages do not add to 100 because each respondent could indicate more than one intervention technique.

TABLE 2. ACTIONS RESPONDENTS WERE WILLING TO TAKE IN PREVENTING IMPAIRED-DRIVING BY GENDER, AGE, AND MARITAL STATUS

Type of Intervention	Gender Percent Willing to Intervene Male	 Female
Persuade the person not to drive	77 (177)	73 (162)
Drive the person home of have him or her take a taxi	86 (197)	85 (188)
Suggest that the person stay overnight at your home or at a hotel	76 (175)	80 (177)
Take the person's keys away	46 (105)	47 (104)
Physically restrain the person	19 (44)	19 (42)
Call the police	9 (21)	11 (24)
Total	(N=229)	(N=221)

	Age Percent Willing to Intervene 18-24	 25-34	 35+
Try to persuade the person not to drive	79 (61)	76 (123)	74 (155)
Drive the person home or have him or her take a taxi	92 (71)	85 (137)	84 (177)
Suggest that the person stay overnight at your home or at a hotel	84 (65)	81 (131)	74 (156)
Take the persons's keys away	60 (46)	46 (75)	42 (88)
Physically restrain the person	14 (11)	23 (37)	18 (38)
**Call the police	3 (2)	10 (16)	13 (27)
Total	(N=77)	(N=162)	(N=211)

**p<.05

	Marital Status Percent Willing to Intervene Married	 Single	 Others
Persuade the person not to drive	74 (79)	76 (192)	76 (68)
Drive the person home or have him or her take a taxi	90 (96)	85 (214)	83 (75)
Suggest that the person stay overnight at your home or at a hotel	80 (86)	78 (199)	74 (67)
Take the person's keys away	48 (51)	47 (120)	42 (38)
Physically restrain the person	19 (20)	19 (47)	21 (19)
* Call the police	4 (4)	10 (24)	19 (17)
Total	(N=107)	(N-253)	(N=90)

* p<.01

Active Intervention

Table 3 represents different preventive actions taken by the respondents. Again, respondents were provided with the same list of possible intervention techniques. In general, offering to drive the intoxicated person home or calling a taxi were the most frequently employed intervention techniques chosen by the respondents (65 percent). This finding is consistent with Wilson (1984).

Persuading the impaired person not to drive (59 percent) was the second most preferred social intervention. Another 51 percent suggested that the intoxicated person stay over or go to a hotel. Taking keys away from a potentially drunk driver was the least chosen intervention technique used by the respondents. Given the fact that 10 percent of the sample were willing to call the police to prevent the possibility of drunk driving, none of the interventionists called the police in preventing drunk-driving.

Table 4 presents the type of active intervention techniques by gender, age, and marital status. Again, the most frequently utilized intervention technique for both sexes was offering to drive the person home or to have him or her take a taxi (64 percent male and 66 percent female). Persuading the impaired not to drive was the second most employed intervention technique among females (60 percent). In active intervention, more females (28 percent) took keys away from potentially drunk drivers than did males (19 percent).

With regard to age, minor differences exist. Among those in the 18–24 age group, (77 percent n=56) offered to drive the person home or have him or her take a taxi. The most frequent intervention used by the 25–34 age group was to persuade the person not to drive. About 60 percent of those in the 35 years and older group offered to drive the person in question home or had him or her take a taxi (n=45).

Marital status also appears insignificant in determining the type of intervention techniques respondents claimed to have employed.

Summary and Conclusions

The present study has undertaken a descriptive investigation into the degree of willingness and active intervention in drunk-driving situations in an urban community. The study has also analyzed data on respondents' opinions on alcohol-related issues.

In general, the overwhelming majority of the respondents (83 percent) indicated that they consumed alcohol. Over half of the respondents strongly agreed that a drunk person who causes an accident with personal injury should spend time in jail. Approximately 49 percent admitted that it is unlikely that an impaired driver will be stopped by the police.

With regard to preventive measures, the majority of the respondents suggested that increased penalty was the most effective way to prevent impaired driving in Alberta.

A vast majority of the respondents (97 percent) said that they were willing to intervene if a friend or someone in their family was about to drive while intoxicated. As for actions respondents were willing to take to prevent the occurrence of drunk driving, the most frequent intervention technique would be to offer to drive the person home or to have him or her take a taxi (85 percent).

Among those who admitted that they had been in a situation where a friend or someone in the family was about to drive while impaired, the overwhelming majority (94 percent) took

TABLE 3. TYPE OF INTERVENTION TECHNIQUES EMPLOYED IN PREVENTING IMPAIRED-DRIVING

Intervention Techniques	Percent of respondents* N=184
Persuaded the person not to drive	59 (109)
Offered to drive or suggested taking a taxi	65 (119)
Suggested that the person stay overnight or go to a hotel	51 (93)
Tried to take the person's keys away	23 (42)
Physically restrained the person	3 (5)
Called the police	0 (0)

* Percentages do not add to 100 because each respondent could indicate more than one technique.

TABLE 4. TYPE OF INTERVENTION TECHNIQUES EMPLOYED IN PREVENTING IMPAIRED-DRIVING BY GENDER, AGE, AND MARITAL STATUS

Intervention Techniques	Gender	
	Male	Female
Persuaded the person not to drive	59 (57)	60 (52)
Offered to drive or suggested he or she take a taxi	64 (62)	66 (57)
Suggested that the person stay overnight or go to a hotel	46 (62)	54 (47)
Tried to take the person's keys away	19 (18)	28 (24)
Physically restrained the person	4 (4)	1 (1)
Called the police	2 (2)	1 (1)
Total	(N=97)	(N=87)

	Age		
	18-24	25-34	35+
Tried to persuade the person not to drive	63 (35)	64 (53)	47 (21)
Offered to drive or suggested he or her take a taxi	77 (43)	59 (49)	60 (27)
Suggested that the person stay overnight or go to a hotel	50 (28)	57 (47)	49 (18)
Tried to take the persons's keys away	27 (15)	21 (17)	22 (10)
Physically restrained the person	4 (2)	4 (3)	0 (0)
**Called the police	2 (1)	0 (0)	4 (2)
Total	(N=56)	(N=83)	(N=45)

	Marital Status		
	Married	Single	Others
Tried to persuade the person not to drive	62 (39)	62 (8)	44 (12)
Offered to drive or suggested he or she take a taxi	73 (46)	62 (56)	56 (15)
Suggested that the person stay overnight or go to a hotel	46 (29)	54 (51)	48 (13)
Tried to take the person's keys away	22 (14)	22 (21)	22 (7)
Physically restrained the person	2 (1)	3 (3)	4 (1)
* Called the police	0 (0)	2 (2)	4 (1)
Total	(N=63)	(N=94)	(N=27)

actions to prevent the intoxicated friend or family member from driving. Again, this figure is higher compared to a 1981 opinion poll in California which revealed that 40 percent of the public have intervened in drinking-driving situations.

Among those who had taken preventive actions, about 65 percent drove the person home or called a taxi. Nobody called the police. Again, age, sex, and marital status of respondents were not significant in determining preventive measures. A preference for offering to drive the person home or call a taxi tends to prevail across the three demographic variables. However, more females than males took keys away to prevent the occurrence of drunk driving. This finding is congruent with Rabow et.al. (1986)and Wilson(1984). Both studies showed that taking keys away from potentially drunk drivers was done more frequently by females than males.

The findings of this study suggest that the overwhelming proportion of the respondents were willing to intervene and prevent the occurrence of impaired driving. A 1983 Transport Canada Study of a national sample also revealed that, among all the provinces, Albertans recorded the highest percentage of social intervention in preventing impaired driving. With this caveat in mind, research on informal social control of drunk driving represents a significant potential for policy intervention.

Before any effective policy can be derived, more information is needed on many aspects of social intervention in Alberta. Future research along this line of enquiry should address the following questions:

1. Were any of the intervention techniques employed successful? Which ones proved more effective?

2. What was the degree of willingness and active intervention from others?

3. Why would willingness to intervene in potential drunk-driving situations not always result in active intervention (e.g. cost of intervention, fear of police, arrest, etc.).

4. Are the intervention techniques employed different for relatives, spouses or strangers?

5. How does drinking location affect intervention techniques?

6. Drinking-driving related accidents have been increasing in Alberta, but in no identifiable population is the problem as great as among adolescents. Future research should explore the degree of drunk-driving prevention among adolescents per se.

Answers to these and other research questions on drunk-driving intervention will enhance our understanding of the degree of informal social control in the prevention of drunk driving in Alberta and other provinces in Canada.

The potential benefits of curtailing the mortality, morbidity, and trauma associated with alcohol-related traffic accidents through informal social control provide the rationale for an urgent attention to public interventions in drunk-driving situations.

References

Billheimer, J.W. 1983. Preliminary data analysis in support of the California Highway Patrol's 1982 public information campaign to combat driving under the influences. Final report. Prepared for State of California Department of California Highway Patrol.

Hetherington, R.W. et. al. 1978. Drinking behavior among Saskatchewan adolescents. Canadian Journal of Public Health 69:315-324.

Kinzel, C. 1984. Edmonton Area Study Sampling Report, 1984. Edmonton: Population Research Laboratory, University of Alberta.

Mosher, J. 1983. Server intervention: A new approach for preventing drinking-driving. Accident Analysis and Prevention 15:483-87.

Rabow, J. et. al. 1986. College students do intervene in drunk-driving situations. Sociology and Social Research 70: 224-225.

Reed, D.S. 1981. "Reducing the costs of drinking and driving" , in Mark H. Moore and Dean R. Ferstein (eds), Alcohol and Public Policy: Beyond the Shadow of Prohibition. Washington, D.C.: National Academy Press.

Sawka, E. 1985. At-risk drinking drivers in the 1984 Edmonton area study sample. Edmonton: AADAC

Smart, R.G. et. al. 1974. Trends in Drug Use Among Metropolitan Toronto High School Students: 1968-1974. Toronto: Addiction Research Foundation.

State of California, Dept. of Alcohol and Drug Programs. 1981. Driving Under the Influence: California Public Opinion. Pub. No. ADP82-4, Sacramento.

Wilson, J.R. 1984. A National Household Survey on Drinking and Driving: Knowledge, Attitudes and Behaviour of Canadian Drivers. Prepared for the Road Safety and Motor Vehicle Directorate. Ottawa: Transport Canada

Yoder, R. 1975. Prearrest behavior of persons convicted of driving while intoxicated. Journal of Studies on Alcohol 36: 1573-1577

Yoder, R. and Moore, R. 1973. Characteristics of convicted drunken-drivers. Quarterly Journal of Studies on Alcohol 34: 927-36.

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